

Exam. Code : 103202
Subject Code : 1251

B.A./B.Sc. 2nd Semester
BOTANY
Paper-II A (Cell Biology)

Time Allowed—2 Hours] [Maximum Marks—35

Note :—There are *eight* questions of equal marks.
Candidates are required to attempt any *four* questions.

1. With the help of diagrams, give a detailed account of structure and functions of nuclear pores.
2. Give an account of morphological features, shapes and sizes and chemical composition of eukaryotic nucleus.
3. Discuss in detail 'Inheritance pattern in yeast indicating role of mitochondrial DNA'.
4. What do you understand by "Plastid inheritance" ? Discuss in detail. Support your answer with suitable examples.

5. Write notes on any *two* of the following :
 - (a) Chromosomal proteins
 - (b) Centromere and telomeres
 - (c) Duplication – a type of chromosomal alteration.
6. Give a detailed account of 'Polyploidy'.
7. Discuss in brief different theories proposed to describe structure of plasma membrane.
8. Give a detailed account of 'Structure and functions of plant cell wall'. Support your answer with suitable diagrams.